Appendix B

Field Sampling Plan for Operable Unit 3-13, Group 4 Perched Water Well Installation

DOE/ID-10745
Revision 0

[The document that is the subject of this appendix was provided as an attachment to the original deliverable.]

Appendix C

Quality Assurance Project Plan for Waste Area Groups 1, 2, 3, 4, 5, 6, 7, 10, and Inactive Sites

DOE/ID-10587
Revision 6

[The document that is the subject of this appendix was provided as an attachment to the original deliverable.]

Appendix D

Tracer Test Plan for Operable Unit 3-13 Group 4, Perched Water

DOE/ID-10762
Revision 0

[The document that is the subject of this appendix was provided as an attachment to the original deliverable.]

Appendix E

Long-Term Monitoring Plan for Operable Unit 3-13, Group 4 Perched Water

DOE/ID-10746
Revision 0

[The document that is the subject of this appendix was provided as an attachment to the original deliverable.]

Appendix F

Waste Management Plan for Operable Unit 3-13, Group 4, Perched Water

DOE/ID-10749
Revision 0

Waste Management Plan for the Staging and Storage Annex

DOE/ID-10800
Revision 0

[The documents that are the subject of this appendix were provided as an attachment to the original deliverable.]

Appendix G

Spill Prevention/Response Program

Appendix G

Spill Prevention/Response Program

Any inadvertent spill or release of potentially hazardous materials (such as equipment fluids) will be subject to the substantive requirements contained in the INEEL Emergency Plan/RCRA Contingency Plan Implementing Procedures manual (PLN-114). The Table of Contents for the companywide plan, PLN-114, plus the Table of Contents and Addendum 1, Sections 1 and 2, for the Central Facilities Area, PLN-114-1, are attached.

Handling of the material and/or substance shall be in accordance with the recommendations of the applicable material safety data sheets, which will be located at the project site(s). In the event of a spill, the emergency response plan outlined in the project HASP will be activated. All materials/substances at the work site shall be stored in accordance with applicable regulations in approved containers.

* These Appendices are facility-specific and therefore are not located in the base plan but rather in the facility-specific addenda.

INEEL Emergency Plan/ RCRA Contingency Plan CFA	**TABLE OF CONTENTS**	Identifier: PLN-114-1 Revision: 27 Page: 1 of 1
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Manual: 16A-1 Emergency Preparedness
Addendum 1 - Central Facilities Area (CFA)
Change Number: N/A
The electronic version of this Table of Contents contains links to the primary sections.

CONTENTS

FIGURE

1. INTRODUCTION

1.1 Purpose

This addendum supplements the *INEEL* (Idaho National Engineering and Environmental Laboratory) *Emergency PlanIRCR,4* (Resource Conservation and Recovery Act) *Contingency Plan* by supplying facility-specific information for the Central Facilities Area (CFA). The base plan format has been followed in this document. In several sections, no facility-specific information is required, as all necessary data are contained in the base plan. In these cases, the sections with no modifications to the base plan will not be listed in the addendum. Only the sections that have facility-specific information not included in the base plan will be listed.

1.4 Site Description

1.4.1.1 Detailed CFA Facility Description

CFA is the main service and support center for the programs located at the INEEL's other primary facility areas. Eighty percent of the activity at the CFA consists of INEEL-wide programmatic support such as transportation, maintenance, capital construction, environmental and radiological monitoring, security, fire protection, warehouses, calibration laboratories, and a cafeteria. A small amount of research and development work is also conducted. Work on radioactive and hazardous materials is restricted in and around the CFA.

The CFA facility covers 653,438 square feet and includes 78 craft shops, laboratories, warehouses, storage facilities, service facilities, and technical and administrative support buildings. These buildings and structures are located generally in the Scoville area. CFA is also responsible for all areas outside of other facilities' boundaries, but inside the INEEL. Nearly 960 employees work in the CFA area. The original facilities at CFA were built during the 1940s and 1950s, and were initially used to house Naval Gunnery Range personnel, and later, National Reactor Testing Station personnel. The facilities have been modified over the years to fit the changing needs of the INEEL.

The CFA can be divided into eight functional sections:

1. **Security Complex Section.** This section includes the Security Headquarters Building, Fuel Storage and Transfer

and Munitions Bunker, and the CFAEmergency Control Center (ECC). The Safeguards and Security Protective Forces generates hazardous waste through its firearms operations.

2. **Engineering and Light Laboratory Section.** This section includes engineering shops, offices, and laboratories; the fire engineering facility; Calibration Laboratory; DOE-operated Radiological Environmental Sciences Laboratory (RESL); and the Core Storage Library.

   RESL, CF-690, is an office and laboratory building where principal RESL programs activities are conducted. The building includes offices, a Beta irradiation laboratory room (Room 172), a hazardous and mixed waste management area (Room 12 1), a radioactive material vault (Room 196), an acid storage room (Room 13 1), a chemical storage room (Room 132), a flammable liquids vault (Room 129), and several other office and storage rooms. Several of the laboratories contain satellite accumulation areas. CF-690 uses lead for shielding and stores lead and mercury, two hazardous materials that exceed their screening threshold quantity.

   The Department of Energy Laboratory Accreditation Program (DOELAP) Team of the RESL manages and operates the calibration facility at CF-638 on the INEEL site. The building is an arched structure built of reinforced concrete and covered by an earth berm with at least 50 cm of soil. The floor is approximately 6 ft above grade. On the inside, it is about 25 in long, 8.1 in wide, and 3.7 in high at the peak of the arch with a single doorway to the outside located in the northwest end.

   Facility design, written procedures, personnel training, and other measures are utilized to minitmize the hazards to personnel, equipment, and the environment. The risks associated with operating the calibration facility are essentially the same as those risks encountered in any small research laboratory and are magnified only by the presence of radiological sources.

   The Environmental Chemistry Laboratory, CF-625, is an integrated gas analysis laboratory currently supporting waste drum headspace sampling and analysis for the Transuranic Waste Characterization Program (TWCP). Support analytical services for TWCP at this lab include

analysis of Volatile Organic Compounds in waste drum headspace gases by Gas Chromatography Flame Ionization Detector and Thermal Conductivity Detector as well as Gas Chromatography Mass Spectroscopy. Additional activities include "Summa" gas canister cleaning, packaging and shipping, sample preparation, sample receipt, data reporting and ext~nsive quality assurance and quality control as required by the programmatic quality requirements.

The Standards and Calibration Laboratory, CF-698, is designed to calibrate and repair measuring instruments that are used at INEEL facilities. CF-698 also stores lead and mercury, two hazardous materials that exceed their screening threshold quantity.

3. **Administrative Offices and Support Section and Fire Training Facility.** This section includes administrative offices, the CFA Fire Station, Medical Dispensary, Communications Building, Radio and Alarm Shop, Bus Depot, Fleet Management, Cafeteria, and the Field Engineering and Materials Testing Lab.

4. **Warehousing and Storage Section.** This section contains two large warehouses used for storing and receiving materials, a gas cylinder storage facility, craft material storage buildings and yards, and several fenced storage areas.

5. **Service Shops Section.** This section includes vehicle maintenance shops, motor pool, heavy equipment yard, and a multicraft shop complex.

6. **Handling and Open Storage Section.** This section contains a large stockpile of processed manganese ore, a railroad spur and transfer yard used for open storing and handling large items, and the switch track.

7. Remote Service Facilities. This section includes light laboratories, the Scoville Substation and Control House, the Sewage Treatment Plant, a dosimetry calibration facility, and a petroleum fuel storage area.

8. **Landfill.** This section includes the sanitary landfill, gravel pit, and the Concrete Batch Plant.

Outlying Areas Administered by CFA

1. The Experimental Breeder Reactor I (EBR-I) area is located at the INEEL, southwest of CFA. EBR-I, the first reactor built at the INEEL, began operation in 1951 and was decommissioned in 1964. In 1966, the reactor was designated a Registered National Historic Landmark. Additional details are contained in the Tentative Hazard Classification for the Experimental Breeder Reactor I Facility (EBR-I), May 1994, and the Safety Analysis Reportfor the Experimental Breeder Reactor I Facility (EBR-I), April 1995. See Appendix M for more information on EBR-1.

   The EBR-I area facilities consist of

   a. EBR Building and Administration Building Annex (EBR-601). Historical displays are located in these buildings, and tours are given during the summer months. The decommissioned EBR-1 reactor is located in EBR-601. The hazardous areas of the EBR-1 reactor have been sealed off to protect the touring public.

   b. The Aircraft Nuclear Propulsion Display located adjacent to the EBR-I area parking lot.

   c. Buildings WMO -60 1 A, AEF -603, which are unused. Building WMO-601 is unused except

for the High Bay area, which is used for unheated storage.

d. Guard House (EBR-602).

e. EBR-I parking lot areas.

2. The **Auxiliary Reactor Areas (ARAs)** 1, 11, and III are located east of CFA and are currently inactive or are being decontaminated and decommissioned (see Appendix N). The pumphouse at ARA III has been demolished. The ARA IV Dynamic Processing Area is a research and development facility that uses explosives for dynamic compaction/consolidation of metal and ceramic powders, explosive forming or joining of materials, and shock wave processing for changing material properties. ARA IV is unmanned, except when activities are being conducted with explosive devices (see Appendix NI). These activities are conducted on a weekly or monthly basis and are closely coordinated with the Warning Communications Center (WCC). The WCC communicates with other organizations to ensure access to the area is controlled.

   Probability, consequence, and risk levels for abnormal operating and accident conditions at ARA IV were assessed and evaluations are detailed in the *Safety Analysis Reportfor Auxiliary Reactor Area IV (ARA -IV) Dynamic Processing Area,* June 1995. Results of the assessment indicate that risks are in the low or negligible category. Additional details on ARAs 1, 11, 111, and IV are included in the Engineering Design File (EDF) *INEL-951103, ER- WA G5-54.*

3. The **Naval Ordnance Disposal Area (NODA)** is located in the southern part of the INEEL, approximately 3.2 kilometers (km) from CFA. Around 1967, the NODA was used for storing potentially hazardous chemicals temporarily, treating chemically reactive materials, disposing of explosive ordnance, engineering research and development, and managing bomb threats. On February 25, 1997, the Operating Permits Bureau issued a letter formally acknowledging that NODA was closed under RCRA.

4. When a transportation incident occurs on the INEEL, categorization and classification is performed by the CFA EAM. Generators/receivers of INEEL shipments will

provide necessary technical assistance to the CFA EAM for making an emergency declaration, if requested.

1.4.1.2 Hazards Assessment

CFA is a nonnuclear facility. Hazards assessments that systematically evaluate radiological and nonradiological hazards and the consequences of those hazards were conducted for CFA. Available and applicable information from safety analysis reports, safeguards and security plans, toxicological data bases, hazardous materials data bases, weather information, material safety data sheets, environmental impact statements, environmental assessments, and other documents were used in developing these assessments. The specific documents used in determining the extent of the hazards identified in this information and in developing emergency action levels (EALs) are referenced in the hazards assessments. Section 4 of this CFA addendum contains a matrix of all developed EALs and their corresponding protective action.

Training, drills, and exercises and allocation of resources are based upon those assessments.

Landlords and functional managers have the responsibility of informing the Emergency Preparedness ImplementationManager of any operational or configuration changes that may affect hazards or consequence assessments. Hazards assessments will be reviewed in accordance with established procedures and whenever operations or processes change or the approved maximum inventory of hazardous materials changes.

A CFA hazards assessment document, *Central Facilities Area (CFA) Hazards Assessment,* HAD-3 1, is a separate report, and is maintained in the CFA ECC.

The highest emergency classification at CFA is a site area emergency. Range fires affecting an INEEL facility, security emergencies such as a terrorist attack and credible threatened detonation of a explosive device can create a site area emergency.

An emergency classified as an Alert can occur if fires in unexploded ordnance areas occur. Additionally, EALs have been developed to address potential explosion conditions

that could involve 10,000 gallons or more of certain fuels such as gasoline, kerosene, propane, etc.

CFA Emergency Response Organization (ERO) assumes responsibility for all aspects of transportation incidents on the INEEL that occur outside of individual operating facility's emergency planning boundaries. The lNEEL Fire Department assumes tactical command at the scene. Bechtel BWXT Idaho, LLC (BBWI) has implemented response agreements, specified in Memoranda of Understandings, with off the INEEL agencies involving hazardous material transportation incidents. When activated, the BBWI FRO, and the INEEL Emergency Operations Center support staff, assists the CFA EAM with communications, notifications, assessment support, long range planning, logistics, and coordination of technical support by the generating/receiving contractor. See Addendum 9, INEEL Transportation Plan (Manual 16A-9), to the *INEEL Emergency PlanIRCRA Contingency Plan* for more information on transportation incidents.

Prior to the establishment of the National Reactor Test Station, portions of the INEEL have been used for testing naval guns by firing explosive and nonexplosive projectiles at target areas, bombing runs, explosive bunker tests, and experimental ordnance tests. As a result, many areas still contain unexploded ordnance. Currently, the unexploded ordnance areas are in the process of being cleared under the Comprehensive Environmental Response, Compensation, and Liability Act to reduce the hazards associated with the ordnance and ordnance fragments. Unexploded ordnance areas to be cleared or that may pose a hazard to personnel include: Fire Station 11 Zone, Experimental Field Station Area, Craters East of the Idaho Nuclear Technology and Engineering Center, Mass Detonation Area, Railcar Explosion Area, Naval Ordnance Disposal Area, Land Mine and Fuse Bum Area, National Oceanic and Atmospheric Administrative Area, and the Juniper Mine Area. These areas are also listed in implementing procedure EPI- 10, Appendix A. Maps identifying these areas are located at the CFA ECC.

Chlorine has been removed from CFA. The two deep wells used for CF-642 and -651 are now using calcium hypochlorite for the treatment of raw water.

1.4.1.3 Population Distribution

Figure 1-1 illustrates population distribution within 50 miles of CFA. Also refer to Table I -I in the base plan.

1.4.1.4 Utility System

Power

Standby power is available at CFA in the event of loss of power from the Scoville Station, Equipment Pool. Priorities for issuing standby generators will be established by the CFA/INEEL EAM. In addition, some buildings at CFA have permanently assigned standby generators. These buildings are CF-1612, the medical facility; CF-609, the Security Headquarters; CF- 1611, the Fire Station; CF-688/689/690, the Technical Center and RESL; CF-668, the Telecommunications building; and the Main Guard Gate. With the exception of the CF-668 standby generator, which is maintained by Telecommunications, these generators are inspected in accordance with established procedures by the CFA Site Facilities maintenance personnel.

Water

CF-753 is an above-ground, raw water, storage tank containing 500,000 gallons of water. Additionally, there is a 250,000-gallon below ground, covered reservoir.

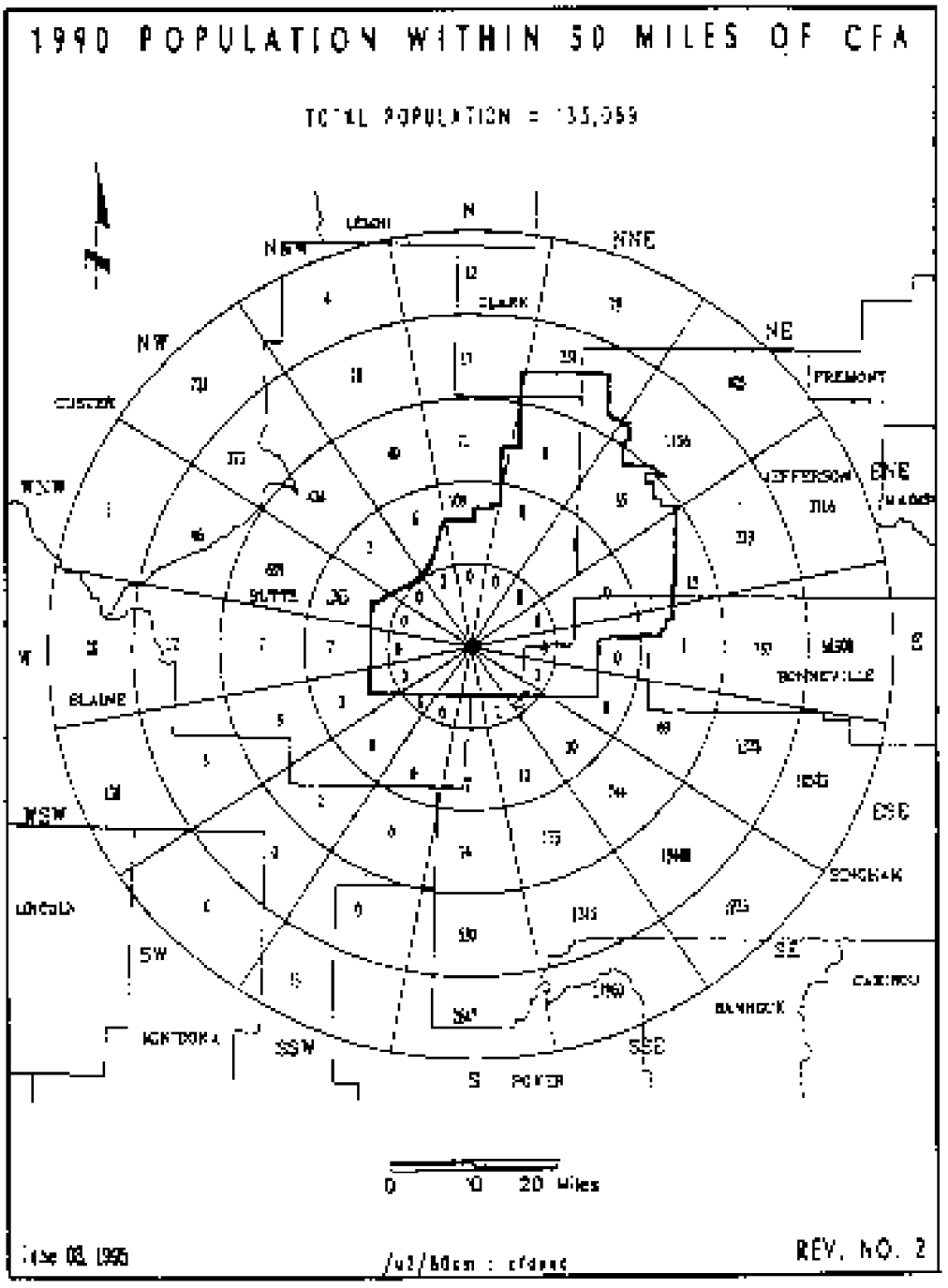


Figure 1-1. Population distribution within 50 miles of CFA.

The CFA water system is a combined potable/firewater system with two deepwells producing 650 gallons per minute each. The system has two above ground storage tanks with a capacity of 500,000 gallons each. Domestic water pumps are variable speed pumps and have a maximum capacity of 1,000 gallons per minute. Diesel firewater pumps have a capacity of 1,500 gallons per minute. Both domestic and firewater pumping systems have redundant backup systems.

Each of the deep wells is being treated with calcium hypochlorite.

CONTENTS

FIGURE

2. EMERGENCY RESPONSE ORGANIZATION

All information for this section is contained in the base plan, except for the following subsections.

2.1 Organization Structure

2.1.3 Committees

2.1.3.3 Emergency Preparedness Implementing Team (EPIT)

The EPIT is a chartered organization that acts as an oversite steering committee. The EPIT is comprised of key managerial personnel from CFA. The purpose of the EPIT is to discuss current emergency preparedness topics, policies, and issues affecting CFA. Recommendations are presented to the EP Director for consideration. The EPIT meets periodically, as required.

2.3 Emergency Management Operations

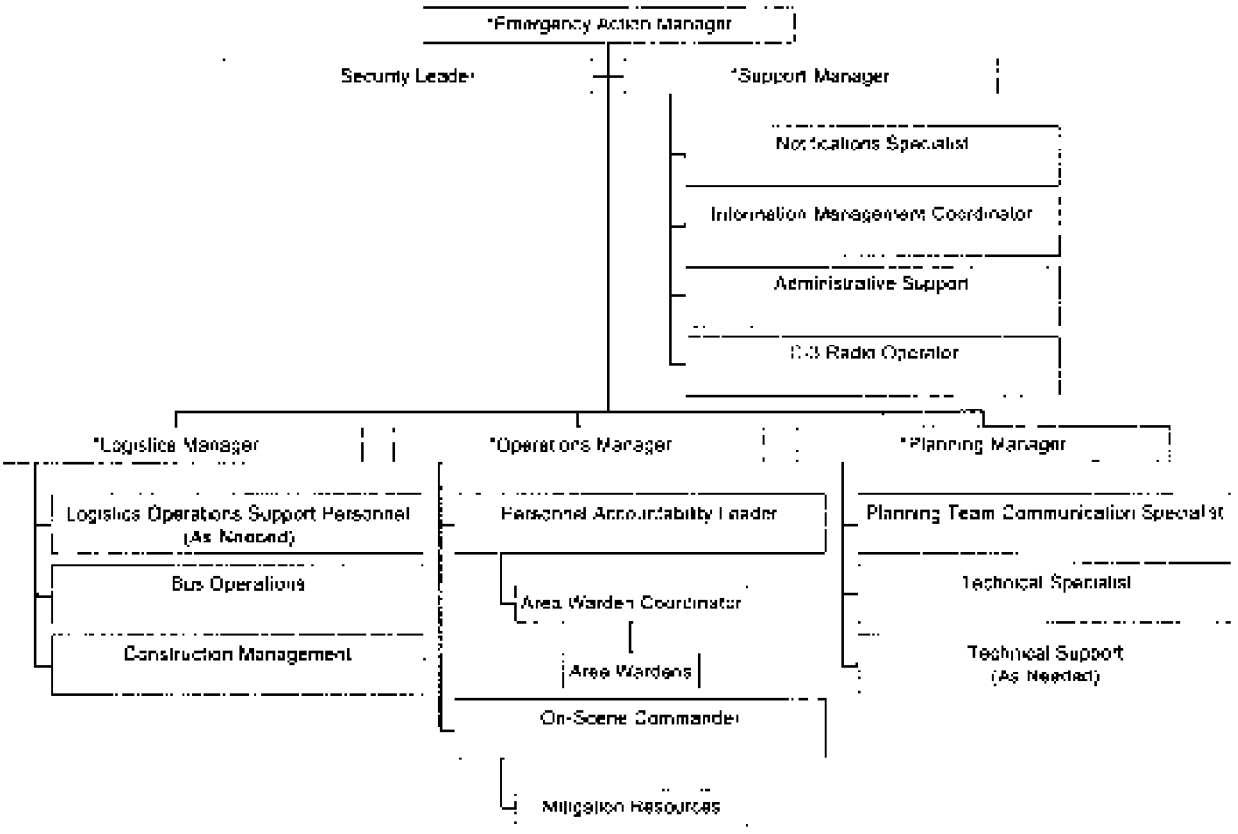
2.3.1 Emergency Management Personnel (Response)

Appendix I lists all emergency response personnel by name and telephone numbers who fill the Emergency Response Organization's (ERO's) Emergency Action Manager positions and the Temporary Accumulation Area Emergency Coordinator positions.

2.3.1.1 CFA Emergency Management Personnel (Response)

The primary incident response organization for CFA is the Idaho National Engineering and Environmental Laboratory Fire Department, which may be supported by facility personnel at the Central Facilities Area (CFA) Emergency Control Center (ECC). Also refer to 2.3.1 of the base plan.

Figure 2-1 shows the structure for CFA's ECC ERO.



*= Minimum ERO positions to make ECC operational.

Figure 2-1. CFA ECC ERO structure.

Appendix H

Health and Safety Plan for Operable Unit 3-13, Group 4 Perched Water Project

INEEL/EXT-2000-00257
Revision 0

[The document that is the subject of this appendix was provided as an attachment to the original deliverable.]